

Editorial

MARIJUANA

THE peculiar and striking effects of the hemp plant when taken as a drug into the human system have been known for many centuries. Indeed, it would appear that from time immemorial it has been used in several forms and by various methods for its stimulating and narcotic effects by many millions of people in the East. During the eleventh century a remarkable sect of unorthodox Mohammedans appeared in Asia and gradually established themselves as a considerable and dreaded military power. Their most famous leader was Sheik-al-Jebal, known to contemporary literature as "The Old Man of the Mountains", a functionary who gave much concern to the Crusaders. This sect is supposed to have attained its "bad eminence" through the violence and impetuosity of certain bands of its members while under the influence of hemp. The name given to it, "Hashishim", or "The Hemp People" is the origin of our word "assassin". Etymology sometimes conveys an interesting bit of history.

The plant concerned is known in the pharmacopœias as *Cannabis indica*, a variety of *Cannabis sativa*, belonging to the order Cannabinaceæ, in which there are only two species, the hemp and the hop. It is related to the nettle. It is a native of Persia and India, but is cultivated for its fibre in most warm, dry climates, as in Italy, Russia, South Africa, and in parts of America. It is not unknown in Canada.

The poisonous action of the plant is due to an active principle called "cannabinol," which is contained in a sticky resinous substance secreted chiefly by the female plants. The dried and compressed resinous tops are known in India as "ganjah" and, elsewhere, as "guaza". This product is smoked usually with tobacco. The dried leaves are called "bhang" in India and "hashish" in Arabia. From them can be made by infusion an intoxicating drink, or they may be made up into a conserve. Among the Persians, Arabs, and Egyptians hashish was used originally as a flavoured sweetmeat or treacle, prepared either from the leaves or the resin.

Nowadays, hashish is more often smoked with tobacco. In South Africa the Hottentots smoke the drug under the name of "dakha" or "dagga." The resin separated from the plants is known in India as "charas" or "churras." This is obtained in some instances by the primitive method of walking, clad in a leathern garment, through the field of plants and later scraping the resin from the clothing, or the plants are beaten over rough cloths.

The peculiar properties of the hemp plant as effecting derangements of the central nervous system are most marked when it is grown in warm countries, and also seem to depend somewhat on climate and the season during which it is grown. Its effects, therefore, are not uniform and cannot always be predicted with certainty. The following excellent description of its pharmacological action is taken from Cushny's "Pharmacology and Therapeutics."*

"The effects of *Cannabis indica* are chiefly due to the changes in the central nervous system, in which it induces a mixture of depression and stimulation similar to that seen under small doses of morphine. Its action is much less constant, however, and seems to depend very largely on the disposition and intellectual activity of the individual. . . . Soon after its administration the patient passes into a dreamy, semi-conscious state, in which the judgment seems to be lost, while the imagination is untrammelled by its usual restraints. The dreams assume the vividness of visions, are of boundless extravagance, and, of course, vary with the character and pursuits of the individual. . . . Ideas flash through the mind without apparent continuity, and all measurement of time and space is lost. True hallucinations may appear, but are often absent, the chief features of the actions being merriment, comfort, well-being, and self-satisfaction. Often, less pleasant thoughts obtrude themselves, however, such as the fear of impending death or of some imminent, indefinite danger.

* Ninth ed., Lea & Febiger, Phila., 1929, p. 281.

During this period the consciousness is not entirely lost, for the patient often feels that his dreams are unreal, his satisfaction unfounded, and his movements ridiculous, but he cannot restrain them; he can give a coherent account of his condition when aroused and answers questions intelligently. . . . Later the dreams alternate with periods of complete unconsciousness from which the patient can be aroused easily, and the symptoms eventually pass into tranquil sleep, from which he awakens refreshed, and, as a rule, without any feeling of depression or nausea. . . . In some cases acute mania and convulsive attacks have been developed, and among the natives of India catalepsy occasionally occurs."

It will be seen from this that the use of this drug must have a peculiar fascination for certain types of character. That there is no after-depression or nausea is an added attraction. The periods of excitation with loss of adequate control would seem to present special dangers. Probably, indulgence in Indian hemp is responsible for the curious case of Orientals "running amok", and the plausible suggestion has been brought forward that some of the many crimes of violence being perpetrated at the present time in the United States should be attributed to the same cause. It is a point that deserves investigation.

The interest for us in this matter lies in the fact that the use of Indian hemp is no longer confined to the "mystic East" but has become a real menace in Canada and the United States. At the last session of the Opium Advisory Committee of the League of Nations, held in June last, it was stated that "Seizures of Indian hemp have been reported from Canada, Egypt and Roumania. The Canadian seizures are of interest, as these appear to be the first seizures of hemp drugs introduced into Canada from places other than the American continent. The Committee will remember that previously there have been a number of seizures in Canada of marijuana cigarettes from the United States." The fact that various authorities have tightened the clamps on the manufacture of drugs such as opium, heroin and cocaine, and that their vigilance has made the illicit traffic in these drugs highly precarious, has caused the "dope" vendors

and addicts to explore other fields, that promise similar profit and pleasure and less risk. Hence they have turned to hashish, known in this country by the Spanish name "marijuana" (pronounced "marihuana"), or, more colloquially, "hay" or "the weed." While the cultivation of Indian hemp appears to be forbidden in most European and near-Eastern countries, liberal supplies continue to be available for the illicit traffic. The ease with which the hemp plant can be cultivated in warm countries and the fact that it grows wild in so many places render the problem of controlling the traffic a most difficult one. Hemp, for example, is grown clandestinely in some of the Balkan states, in Syria, South Africa, and in south-western United States. Supplies have also, recently, been obtained from certain of the West Indies.

For our information in regard to the development of the illicit traffic in Indian hemp as it concerns Canada we are indebted to the Narcotics Division of the federal Department of Pensions and National Health, and particularly to Col. C. H. L. Sharman, to whom we desire here to extend our cordial thanks.

The first intimation that the drug was being introduced into this country was received in May, 1931, when it was discovered that marijuana cigarettes were being sold in Walkerville, Ont., at \$1.00 each. A purchase was made and an analysis showed that the cigarette was composed entirely of Indian hemp. It was further learned that these cigarettes were being brought over from Detroit, Mich., and were being sold to young boys and girls. The plant was in some cases obtained in bulk and made up into cigarettes on the Canadian side. It was found possible to purchase 370 grains of the loose weed for \$3.10. Analysis of the bulk marijuana referred to above showed a strength approximating in potency 116 per cent of the American standard in the P.X. for fluid extract of *Cannabis indica*. In April, 1932, it became known that marijuana cigarettes were being sold illicitly in Ottawa. This traffic was traced to its source in Windsor, and, shortly after, it was learned that some thirty young people in that city were addicted to marijuana. The cigarettes were being peddled in dance halls. Again

the source of supply was Detroit. In May, 1933, the marijuana cigarette had reached Montreal, apparently from New York, and was being used in cabarets and night clubs, and by October of the same year shipments were arriving from the West Indies, in particular, from Kingston, Jamaica, and again, from West Africa. In July, 1934, marijuana cigarettes were being sold in Toronto. It has been stated, on competent authority, that the use of marijuana is very popular on the Pacific coast. Thus, it can be seen that the traffic in Indian hemp has attained the proportions of an industry with widespread ramifications. The same statement applies to the United States. The Mexican representative on the Advisory Committee of the League of Nations was quoted in August, 1933, as saying that in recent years the use of Indian hemp had greatly increased in Mexico, the United States, and Canada.

From statements before us it would seem that the illicit traffic in marijuana cannot be readily controlled in the United States, for the reason that Indian hemp is not included among the narcotic drugs specified in the Harrison Act, and, this, of course, means

that Canada must show correspondingly increased vigilance to prevent imports into this country. Fortunately, our Narcotics Act fully covers the matter. The above tale, though told only in outline, will sufficiently indicate the excellent work done by our Narcotics Division, with the efficient aid of the Royal Canadian Mounted Police, in laying bare the existence of this nefarious traffic. Much has been done already to dash the ardour of the traffickers, and some salutary punishments have been imposed by the courts. Probably, much more yet remains to be done, but there is no doubt that eventually the traffic will be still better controlled, and, we hope, ended. The menace is a serious one, for the experience of all countries is that the hashish habit has a special appeal to the young, not, necessarily, that they crave for the drug, at least at first, but they use it with the desire to appear "smart." Then, comes the urge for more, and a dangerous habit is created. It would appear, also, that most of those indulging in hashish represent new fields for exploitation, they not having been at any previous time addicts to morphine, heroin, or cocaine.

A.G.N.

MEDICAL ECONOMICS—A VEXED QUESTION IN AMERICAN MEDICAL AND HOSPITAL ORGANIZATIONS

MEDICAL and hospital organizations in the great republic to the south, although all actuated by the same lofty ideal of healing the sick, are finding it very difficult to agree on the *modus operandi*, and, inasmuch as many Canadians are members of these organizations, or realize the likely effect here of principles adopted by our neighbour, the development and crystallization of these studies and policies is being followed with considerable interest.

On June 10th of this year the American College of Surgeons issued a statement embodying six principles: its desire to cooperate in providing more adequate medical care; the duty of the medical profession to assume the leadership in this movement; encouragement to the trial of ethically controlled methods of practice designed to provide more adequate medical service to the whole community; that the care of the indigent

sick should be a direct obligation upon the community and physicians should be remunerated for their care; that a coordinated public educational campaign regarding protective and curative medicine should be undertaken; and that "the periodic pre-payment plan providing for the costs of medical care of illness and injury of individuals and of families of moderate means offers a reasonable expectation of providing them with more effective methods of securing adequate medical service." A number of desirable features are then appended, such including free choice of physician and hospital, payment on a basis of service, and freedom from the intervention of commercial intermediary organizations operating for profit. It was suggested that plans for the payment of hospitalization alone, without provision for payment for medical service, might be considered as the first project to be considered.